

# NOTICE TO EQUIPMENT BIDDERS FOR MIAMI COUNTY HIGHWAY DEPARTMENT FOR A NEW 3 YARD, 4-WHEEL DRIVE LOADER

Notice is hereby given, that the Board of County Commissioners of Miami County, Indiana, will receive **BIDS** for a **New 3 Yard, 4-Wheel Drive Loader** will be accepted up to the hour of **9:15 a.m. on May 16<sup>th</sup> 2016**, requisitioned by the Miami County Highway Department, for equipment use maintenance of county roads and bridges. Bids should be submitted on **Form #96**, prescribed by the State Board of Accounts. **Bids will be awarded on June 06<sup>th</sup> 2016 at 9:15 a.m.** Copies of the detailed specifications and instructions will be posted on the Miami County Website.

Trade-in allowance on a 1978 Case W24 Loader towards new equipment.

New loader to be delivered on or by 60 days of ordered from winning bid. **The County of Miami, Indiana has the right to reject any and all bids.**

## Bid specifications for 3 Yard, 4-Wheel Drive Loader

### Compliance

### Engine

- |        |       |  |
|--------|-------|--|
| yes___ | no___ | Six Cylinder, turbocharged, charge air cooled diesel engine and shall be designed and built by the manufacturer  |
| yes___ | no___ | Engine shall be certified to EPA Final Tier 4/EU Stage IIIB  |
| yes___ | no___ | Engine shall have a wet-sleeve cylinder liner design for improved cylinder cooling over dry sleeve and cast-in-bore design for improved cylinder and piston ring durability. |
| yes___ | no___ | Engine displacement shall be no less than 6.8 liters (414 cu. In.)   |
| yes___ | no___ | Engine net peak power shall be no less than 163 hp (121 kW) @1800 rpm  |
| yes___ | no___ | Engine shall develop at least a 37% torque rise and should have at least 504 lb. ft. @ 1,100 rpm net peak torque   |
| yes___ | no___ | Fuel system shall be high-pressure, common rail  |
| yes___ | no___ | Daily check points shall be accessible from one side of the engine and shall be done from ground level   |
| yes___ | no___ | Under-hood engine air cleaner shall be dry type, dual element with a restriction sensor and in-cab restriction warning light   |
| yes___ | no___ | Access to engine will be open from both sides with side opening, full access service doors   |
| yes___ | no___ | Engine shall have no less than 30-micron rated primary fuel filter with water separator  |
| yes___ | no___ | Loader shall be equipped with a heavy-duty steel fuel tank guard   |
| yes___ | no___ | Service interval for the engine oil and filter shall be 500 hours  |
| yes___ | no___ | The unit shall have an auto-idle, auto-shutdown feature for the engine as standard equipment   |
| yes___ | no___ | The electrical system shall be 24 volt with 100 amp alternator   |

### Cooling

- |        |       |  |
|--------|-------|--|
| yes___ | no___ | Unit shall have a proportionally controlled, hydraulically driven, 90 degree-swing-out fan, standard equipment |
| yes___ | no___ | The unit will have two-side access to all coolers  |
| yes___ | no___ | Air intake shall be pre-screened (3 mm perforations) for each cooling component                                |
| yes___ | no___ | Cooling system shall be isolated from the engine compartment   |
| yes___ | no___ | Unit shall have a coolant recovery tank provided   |
| yes___ | no___ | Unit shall have a fan-guard  |
| yes___ | no___ | Fluid levels should be easily checked by sight gauges or overflow tank   |

### Power Train

- |        |       |   |
|--------|-------|---|
| yes___ | no___ | Unit shall have a torque-converter, power shift transmission - 5 forward, 3 reverse gears                     |
| yes___ | no___ | The transmission shall be electronically controlled, adaptive, with load and speed dependent shift modulation |

- yes\_\_\_ no\_\_\_ Shift modes shall be manual, auto to 1st or 2nd, kick down or kick up/down.
- yes\_\_\_ no\_\_\_ Service interval for the transmission oil filter shall be 2000 hours
- yes\_\_\_ no\_\_\_ The transmission clutch calibration shall be performed from the cab monitor and shall have three clutch cutoff settings adjustable on the switch pad
- yes\_\_\_ no\_\_\_ Unit shall have steering column or joystick mounted F-N-R and gear-select lever, kick-down button on hydraulic lever. Will also have quick shift feature that allows pushbutton gear changes, one gear at a time
- yes\_\_\_ no\_\_\_ Sight gauge showing transmission fluid shall be at ground-level
- yes\_\_\_ no\_\_\_ Transmission filter restriction shall be displayed in the cab

#### **Axles/Brakes**

- yes\_\_\_ no\_\_\_ The final drives shall be heavy-duty inboard planetary
- yes\_\_\_ no\_\_\_ The loader shall have two brake pedals with an activation switch to allow left brake pedal to switch between a brake neutralizer or brake only function.
- yes\_\_\_ no\_\_\_ The service brake shall be hydraulically actuated, inboard, sun shaft mounted, pressure oil cooled, self-adjusting, single disc and sealed from water, mud and dust contamination
- yes\_\_\_ no\_\_\_ The parking brake shall be automatic, spring applied, hydraulically released, oil cooled, multi-disc and sealed from water, mud and dust contamination
- yes\_\_\_ no\_\_\_ Rear axle shall not have less than 24 degree total oscillation, stop to stop, when equipped with 20.5R25 tires
- yes\_\_\_ no\_\_\_ The dipstick port and housing fill shall be at the top of the axle
- yes\_\_\_ no\_\_\_ The front axle shall be hydraulically actuated, disc clutch style, locking differential for maximum traction when required but with less tire wear than limited slip or no-spin differentials
- yes\_\_\_ no\_\_\_ An optional rear axle disconnect shall be available for reduced fuel consumption and improved ride while driving the loader on-road between sites
- yes\_\_\_ no\_\_\_ The loader shall have a standard hydraulic locking front with conventional rear and optional dual locking front and rear
- yes\_\_\_ no\_\_\_ The loader shall have front axle with hydraulic locking differential
- yes\_\_\_ no\_\_\_ The loader shall have front and rear axles with hydraulic locking differentials

#### **Hydraulic System**

- yes\_\_\_ no\_\_\_ Hydraulic filter shall be in the hydraulic tank with service interval of 4000 hours
- yes\_\_\_ no\_\_\_ The hydraulic fluid shall have a rated life of 4000 hours
- yes\_\_\_ no\_\_\_ The hydraulic system shall be pressure-compensating load-sensing for reduced fuel consumption and better fluid heating compared to open center hydraulic systems
- yes\_\_\_ no\_\_\_ Hydraulic reservoir capacity should be no less than 32.5 gallons for extended hydraulic fluid intervals and cooler system temperature
- yes\_\_\_ no\_\_\_ Unit will be provided with an automatic return to dig to level attachment
- yes\_\_\_ no\_\_\_ In cab adjustable automatic boom height kick out control
- yes\_\_\_ no\_\_\_ Unit will be provided with in-cab adjustable automatic boom return-to-carry control
- yes\_\_\_ no\_\_\_ Unit shall be equipped with either single-lever joystick or two-lever fingertip pilot-operated controls
- yes\_\_\_ no\_\_\_ A sight gauge will be provided for checking hydraulic reservoir fluid
- yes\_\_\_ no\_\_\_ Hydraulic pump shall be variable-displacement, axial-piston pump: closed-center, pressure-compensating system
- yes\_\_\_ no\_\_\_ Loader steering articulation angle shall be no less than 80 degrees, 40 degrees in each direction

#### **Electrical**

- yes\_\_\_ no\_\_\_ Two batteries shall be included, 24 volt, 950 CCA, with a rated reserve of no less than 25 amps for 190-min at 80F.
- yes\_\_\_ no\_\_\_ The unit shall have a solid-state electrical power distribution system using circuit board technology and solid-state switches
- yes\_\_\_ no\_\_\_ The unit shall have a keyless starting system with multiple security modes
- yes\_\_\_ no\_\_\_ The unit shall be provided with a master electrical disconnect switch
- yes\_\_\_ no\_\_\_ Cab will be pre-wired for a rotating beacon/strobe light
- yes\_\_\_ no\_\_\_ The in-cab switch module shall be sealed to keep out dirt, dust and airborne debris

- yes\_\_\_ no\_\_\_ Unit shall be equipped with driving lights with guards, turn signals and flashers, stop and tail lights. The tail lights shall be LED type mounted high up in the rear grille for protection from damage and better sight visibility and shall have a normal service life equal to the machine.
- yes\_\_\_ no\_\_\_ Unit shall be equipped with analog display for: engine coolant temperature, transmission oil temperature, hydraulic oil temperature, and engine oil pressure
- yes\_\_\_ no\_\_\_ Unit shall have digital readout for: engine rpm, odometer, transmission gear/direction indicator, speedometer, hour meter, fuel level and outside temperature
- yes\_\_\_ no\_\_\_ Unit shall have operator warning lights for: check engine, engine oil pressure, engine air restriction, battery voltage, transmission filter restriction, brake pressure, hydraulic oil filter, transmission fault, hydraulic oil temperature

#### **Operator Station**

- yes\_\_\_ no\_\_\_ Unit shall be equipped with canopy with ROPS/FOPS protection, and be multiplane isolation mounted for noise/vibration reduction
- yes\_\_\_ no\_\_\_ 3" retractable seat belt shall be provided
- yes\_\_\_ no\_\_\_ Steering wheel shall be tilt-able
- yes\_\_\_ no\_\_\_ 3-point contact at all times at the front and rear of the loader and around the roof-line
- yes\_\_\_ no\_\_\_ The cab shall have continuous and unobstructed glass from roofline to floor for visibility in tight quarters.
- yes\_\_\_ no\_\_\_ A seat backrest extension will be standard
- yes\_\_\_ no\_\_\_ Cab shall have 2 cup holders, personal cooler holder/storage, compartment for operator's manual, rubber floor mat

#### **General Specifications**

- yes\_\_\_ no\_\_\_ Unit shall be equipped with 20.5 R 25, 1 Star L-3 tires with multi-piece rims
- yes\_\_\_ no\_\_\_ Front tires shall be covered with fenders
- yes\_\_\_ no\_\_\_ The counterweight shall be built-in
- yes\_\_\_ no\_\_\_ Unit will be provided with a hitch with locking pin
- yes\_\_\_ no\_\_\_ Unit shall have an articulation locking bar
- yes\_\_\_ no\_\_\_ Unit shall have vandal protection with lockable engine enclosures, right counterweight storage, battery box, filler access for radiator/fuel/hydraulic/transmission
- yes\_\_\_ no\_\_\_ The unit shall be provided with a loader boom service locking bar
- yes\_\_\_ no\_\_\_ Loader shall have reinforced articulation joints with double tapered roller bearings
- yes\_\_\_ no\_\_\_ Fuel tank capacity shall be no less than 86 gallons (325 L)
- yes\_\_\_ no\_\_\_ Operating weight with standard equipment, pin-on wide GP 3 cu yd. (2.3 m<sup>3</sup>) bucket, 20.5R25 tires, ROPS cab, 175 lb. operator and full fuel tank shall be no less than 28,621 lb. (12 982 kg)
- yes\_\_\_ no\_\_\_ Bucket breakout force shall be no less than 23,951 lbs. (10 864 kg) with manufacturer's standard z-bar with pin-on wide 3 cu yd. pin on bucket and standard configuration
- yes\_\_\_ no\_\_\_ Ground clearance under the loader shall be no less than 15.7" (0.40 m)
- yes\_\_\_ no\_\_\_ Loader with attachment coupler and bucket shall have height to hinge pin no less than 12'6" (3.81 m)
- yes\_\_\_ no\_\_\_ Machine Full turn tipping load with standard Z-bar linkage and wide general purpose 3 cu yd. (2.3 m<sup>3</sup>) shall be at least 20,898 lb. (9 479 kg).
- yes\_\_\_ no\_\_\_ Dump clearance at 45 degrees at full height shall be no less than 9 ft. 3 in (2.82 m) with wide General-Purpose with Bolt-on Edge bucket
- yes\_\_\_ no\_\_\_ Reach at 45 degree dump, 7 ft. clearance shall be no less than 4 ft. 9 in (1.44 m) with wide General-Purpose with Bolt-on Edge bucket
- yes\_\_\_ no\_\_\_

### Frames and Structures

- yes\_\_\_ no\_\_\_ Machine front frame shall be of a 4-plate design of four vertical plates extending from boom pivot pins reaching to the front axle to distribute boom loads on the axle. The design is superior to the two-plate frames
- yes\_\_\_ no\_\_\_ Loader bucket bell crank linkage shall be fabricated of high strength steel for increased durability and strength over castings.
- yes\_\_\_ no\_\_\_ Machine shall be equipped with an exterior mounted, ground level storage compartment

### Optional configuration

- yes\_\_\_ no\_\_\_ Unit has optional axle coolers
- yes\_\_\_ no\_\_\_ 5 year Subscription 2-way telematics system
- yes\_\_\_ no\_\_\_ Transmission guards
- yes\_\_\_ no\_\_\_ Bottom guards
- yes\_\_\_ no\_\_\_ JRB Coupler
- yes\_\_\_ no\_\_\_ JRB 3 yd. General Purpose bucket with bolt on cutting edge
- yes\_\_\_ no\_\_\_ JRB 60" Forks
- yes\_\_\_ no\_\_\_ LED lights
- yes\_\_\_ no\_\_\_ Ride Control

Witness my hand and Seal this day 18, of April 2016.

Auditor Miami County,

Jane Lilley

Board of Commissioners  
Miami County, Peru, Indiana

Josh Francis

Larry West

Jerry Hamman